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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Thomas Schuster

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EXAMINER

PHAM, EMILY P

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/584,337	Applicant(s) SCHUSTER ET AL.	
	Examiner EMILY PHAM	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/3/2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 8 is objected to as being unable to constitute a limitation in a patentable sense. It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 13-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites the limitation "the run-up transmitter" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8, 9, 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gritter (USP 4,958,269) in view of Hatcher (USP 4,797,635).

Regarding independent claim 8: Gritter (**claim 8**) disclose a converter, comprising: a device adapted to sense currents fed to an electric motor powered by the converter, the device arranged inside the converter, signals of the device fed to a nonlinear filter. However Gritter does not disclose output signals of the nonlinear filter fed to an additional filter that is connected to an analog-to-digital converter. Hatcher (**FIG 8**) teaches output signals of the nonlinear filter (**168; col. 3, lines 62-63**) fed to an additional filter (**170/158**) that is connected to an analog-to-digital converter (**162**).

Gritter and Hatcher disclose the circuits having loop feedback. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the circuit for microprocessor motor drive current control disclosed by Gritter with the tracking loop having nonlinear amplitude filter taught by Hatcher for the purpose of eliminating the disturbance during signal transmission without degrading the dynamic performance of the tracking loop capable of rapidly acquiring a signal and of remaining locked to the signal.

Regarding dependent claim 9: Gritter (**col. 1, lines 17-21**) discloses the analog-to-digital converter is integrated in a microprocessor.

Regarding dependent claim 12: Hatcher (**FIG 8**) teaches the additional filter including a linear filter (**170/158**).

Regarding dependent claims 13: Gritter and Hatcher in combination disclose the claimed invention except for a value corresponding to a rated current of the converter,

that value is attainable for the run-up transmitter in a time between 5 and 10 μs . It would have been obvious to one having ordinary skill in the art at the time the invention was made to set up the device to obtain a value corresponding to a rated current of the converter for the run-up transmitter in a time between 5 and 10 μs ., since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

Regarding dependent claim 14: Gritter and Hatcher in combination disclose the claimed invention except for the filter with a time constant having a value one of (a) between 15 and 25 μs and (b) approximately 20 μs . It would have been obvious to one having ordinary skill in the art at the time the invention was made to set up the filter with a time constant having a value one of (a) between 15 and 25 μs and (b) approximately 20 μs ., since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art.

6. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gritter (USP 4,958,269) in view of Hatcher (USP 4,797,635) as applied to claim 8 above and further in view of Hoang et al. (USP 6, 559,735).

Gritter and Hatcher in combination disclose the claimed invention except for the nonlinear filter including a run-up transmitter. Hoang et al. (**FIG 1, FIG 2**) teach the nonlinear filter including a run-up transmitter (**FIG 2, 200, 210; column 4, lines 14-16**).

Gritter, Hatcher, and Hoang et al. disclose circuits related to signal processing. It would have been obvious to one having ordinary skill in the art at the time the invention

was made to include the filter transmitter taught by Hoang et al. into the nonlinear filter disclosed by Gritter and Hatcher for the purpose of increasing the efficiency of the filter in signal transmission without complicating the circuit construction and for maintaining a fixed rate of change in signal transmission.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gritter (USP 4,958,269) in view of Hatcher (USP 4,797,635), further in view of Hoang et al. (US P 6, 559,735) as applied to claim 10 above and further in view of Nordling (USP 3,922,606).

Gritter, Hatcher, and Hoang et al. in combination disclose the claimed invention except for the run-up transmitter including a comparator and an integrator. Nordling teaches the run-up transmitter including a comparator and an integrator (**column 2, lines 33-34**).

Gritter, Hatcher, Hoang et al., and Nordling disclose circuits related to signal processing. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the comparator and integrator taught by Nordling into the transmitter filter disclosed by Gritter, Hatcher, and Hoang et al. for the purpose of tracking the difference between input and output signals and providing linear increase of output signal.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Kim (USP 5,973,553) discloses the method and apparatus having nonlinear filter for removing the disturbance from data channel.

Response to Arguments

9. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EMILY PHAM whose telephone number is (571)270-3046. The examiner can normally be reached on Mon-Thu (7:00AM - 6:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Akm Ullah can be reached on (571) 272 - 2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

May 2008

/Jessica Han/
Primary Examiner, Art Unit 2838

/E. P./
Examiner, Art Unit 2838